

ADDITIONS AND CORRECTIONS TO EPHEMEROPTERA SPECIES OF NORTH AMERICA AND INDEX TO THEIR COMPLETE NOMENCLATURE¹

W. P. McCafferty²

ABSTRACT: Heretofore unpublished additions, deletions, and changes to the main checklist of valid North American Ephemeroptera species are provided as are corrections and additions to the nomenclatural index of all names historically associated with them. Index modifications include the addition of 44 new entries and corrections to 21 previous entries.

Subsequent to the appearance of "The Ephemeroptera Species of North America and Index to Their Complete Nomenclature" (McCafferty 1996), certain omissions and minor errors have been discovered. These emendations have come to light primarily as a result of preparing the database of Nearctic Ephemeroptera reflected in McCafferty (1997a), which is strictly predicated on original orthography of species, and of close scrutiny of the literature associated with the Canadian fauna currently under study. Data revealed specific synonyms that had not appeared previously as well as additional name usage (spelling and combinations) found for certain species. In order to maintain the highest degree of utility of the North American index to mayfly species nomenclature (McCafferty 1996), these pertinent modifications are presented below. Additional recent significant changes and corrections to the list and index not covered below can be found respectively in the revision of *Ameletus* by Zloty (1996) and adjustments to names by McCafferty (1997b); however, for all changes published since McCafferty (1996), particularly with regard to occasional new species and synonyms being published, the regularly updated "The Mayflies of North America" found at the Mayfly Central World Wide Web cite <<http://www.entm.purdue.edu/entomology/mayfly/mayfly.html>> should be consulted. Additions and corrections are given below both for the main numerically sequenced checklist of species and for the alphabetical index. In the index, species names appear in italics only for the current valid form of the name as per the McCafferty (1996) format.

¹ Received November 17, 1997. Accepted December 28, 1997.

² Department of Entomology, Purdue University, West Lafayette, IN 47907.

MODIFICATIONS TO THE
NUMERICAL CHECKLIST

Delete

003. *Choroterpes ferruginea* Traver, 1934
004. *Choroterpes fusca* Spieth, 1938
005. *Choroterpes hubbelli* Berner, 1946
132. *Brachycercus floridicola* Soldán, 1986
137. *Brachycercus pini* Soldán, 1986

Corrections

016. *Leptophlebia bradleyi* Needham, 1932
363. *Baetis moffatti* Dodds, 1923
574. *Heptagenia adaequata* McDunnough, 1924
636. *Rhithrogena notialis* Allen & Cohen, 1977
671. *Stenonema terminatum terminatum*
(Walsh), 1862

MODIFICATIONS TO THE
ALPHABETICAL INDEX

Additions

- Baetis curiosus* (McDunnough), 1923 - 432
Baetis moffatti Dodds, 1923 - 363
Baetis pallidula McDunnough, 1924 - 357
Baetis persecuta McDunnough, 1939 - 367
Blasturus cupidus (Say), 1823 - 018
Blasturus grandis Traver, 1932 - 019
Brachycercus pallidus (Ide), 1930 - 133
Callibaetis tessellatus (Hagen), 1861 - 399
Campsurus manitobensis Ide, 1941 - 092
Cloeon chlorops McDunnough, 1923 - 355
Cloeon punctiventris McDunnough, 1923 - 371
Cloeon virilis McDunnough, 1923 - 378
Ecdyonurus fuscus (Clemens), 1913 - 672
Ecdyonurus peterseni Lestage, 1930 - 542
Ecdyonurus werestschagini (Tshernova),
1952 - 619
Ecdyurus hyalinus Esben-Petersen, 1916 - 542
Epeorus undulatus Banks, 1924 - 642
Ephemerella fuscata (Walker), 1853 - 179
Eurycaenis pallida Ide, 1930 - 133
Heptagenia abnorme Tshernova, 1949 - 542
Heptagenia abnormis Tshernova, 1949 - 542
Heptagenia adaequata McDunnough,
1924 - 574
Heptagenia luridipennis (Burmeister),
1839 - misidentification of 667
Heptagenia verticis (Say), 1839 - 085

Heptagenia werestschagini Tshernova,
1952 - 619

- Iron petulans* Seemann, 1927 - 635
Isonychia annulata Traver, 1932 - 515
Isonychia aurea Traver, 1932-524
Isonychia thalia Traver, 1934 - 515
Leptophlebia concinna (Walker), 1853 - 018
Leptophlebia hebes (Walker), 1853 - 018
Leptophlebia ignava (Hagen), 1861 - 018
Leptophlebia pallipes (Walker), 1853 - 018
Oreianthus sp. 1 Traver, 1937 - 126
Paraleptophlebia compar Traver, 1934 - 033
Paraleptophlebia pallipes (Hagen), 1875 - 049
Potamanthus rufus Argo, 1927 - 082
Pseudocloeon virilis (McDunnough),
1923 - 378
Rhithrogena fusca (Walker), 1853 - 634
Rhithrogena imanica Bajkova, 1972 - 619
Siphonurus bernice McDunnough, 1923 - 509
Siphloplecton basalis (Walker), 1853 - 477
Stenonema carolina (Banks), 1914 - 646
Stenonema tessellata (Walker), 1853 - 672

Corrections

- Aneletus montis* Mayo, 1952 - 313
Baetis moffatti Dodds, 1923 - 363
Brachycercus floridicola Soldán, 1986 - 129
Brachycercus pini Soldán, 1986 - 134
Brachycercus sp. A Berner, 1950 - 129
Choroterpes ferruginea Traver, 1934 - 002
Choroterpes fusca Spieth, 1938 - 002
Choroterpes hubbelli Berner, 1946 - 002
Cinygma deceptiva McDunnough, 1924 - 555
Cloe mollis Hagen, 1861 - 051
Cloeon vicinum Hagen, 1861 - 471
Epeorus humeralis Morgan, 1911 - 573
Heptagenia adaequata McDunnough, 1924 - 574
Leptophlebia bradleyi Needham, 1932 - 016
Paraleptophlebia bradleyi (Needham),
1932 - 016
Pseudocloeon carolina (Banks), 1924 - 335
Pseudocloeon cingulatum McDunnough,
1931 - 353
Rhithrogena hespera Banks, 1924 - 561
Rhithrogena notialis Allen & Cohen, 1977 - 636
Rhithrogena petulans (Seemann), 1927 - 635
Thraulius albertanus McDunnough, 1931 - 077

ACKNOWLEDGMENTS

I would like to thank Manny Pescador (Tallahassee, Florida), Bob Waltz (Indianapolis, Indiana), and Boris Kondratieff (Fort Collins, Colorado) for calling my attention to certain information. This paper has been assigned Purdue University ARP No. 15537.

LITERATURE CITED

- McCafferty, W. P. 1996. The Ephemeroptera species of North America and index to their complete nomenclature. *Trans. Am. Entomol. Soc.* 122: 1-54.
- McCafferty, W. P. 1997a. Ephemeroptera. Pages 89-117. In: R. E. Poole and P. Gentili (eds.). *Nomina Insecta Nearctica*, a checklist of the insects of North America, Volume 4: Non-holometabolous orders. Entomological Information Services, Rockville, Maryland.
- McCafferty, W. P. 1997b. Name adjustments and a new synonym for North American Ephemeroptera species. *Entomol. News* 108: 318, 320.
- Zloty, J. 1996. A revision of the Nearctic *Ameletus* mayflies based on adult males, with descriptions of seven new species (Ephemeroptera: Ameletidae). *Can. Entomol.* 128: 293-346.

SCIENTIFIC NOTE

ADDITIONS TO IOWA MAYFLIES (EPHEMEROPTERA)^{1,2}

W. P. McCafferty³, Todd Hubbard⁴

Klubertanz (1995) recorded 66 nominal species of mayflies from the state of Iowa. Thirty-nine of those records represented new state records. Herein we add 10 new Iowa records. Newly reported materials are deposited at the Purdue Entomological Research Collection, West Lafayette, IN (PERC) or the University of Iowa Hygienic Laboratory, Des Moines, IA (IHL).

New state records include *Baetisca obesa* (Say) [larvae, Black Hawk Co, falls access, VI-9-1973 (PERC)]; *Homoeoneuria ammophila* (Spieth) [larvae, Ida Co, Maple R, VIII-5-1997 (IHL)]; *Labiobaetis dardanus* (McDunnough) [larvae, Ida Co, Odebolt Cr, VIII-5-1997 (IHL)]; *Leucrocota juno* (McDunnough) [adults, Story Co, Ames, VIII-1-1991 (PERC)]; *Procloeon irrubrum* Lowen and Flannagan [all larvae, all IHL: Dickinson Co, Little Sioux R, IX-4-1996; Webster Co, Lizard Cr, IX-11-1996; Kossuth Co, Black Cat Cr, VIII-13-1997; Shelby Co, West Nishnabotna R, VIII-15-1997; Warren Co, Whitebreast Cr, VIII-1-1997]; *Procloeon rufostrigatum* (McDunnough) [larvae, Webster Co, Lizard Cr, IX-11-1996 (IHL)]; *Procloeon viridoculare* (Berner) [all larvae: Buchanan Co, Bear Cr, VIII-8-1996; Winnishiek Co, Canoe Cr, IX-9-1997 (IHL)]; *Rhithrogena jejuna* Eaton [larvae, Winnishiek Co, Upper Iowa R nr Kendallville, IX-22-1991 (PERC)]; *Stenacron candidum* (Traver) [adults, Black Hawk Co, Cedar Falls, VII-1-1973 (PERC)]; and *Stenacron carolina* (Banks) [adults, Black Hawk Co, Cedar Falls, VI-10-1973 (PERC)].

LITERATURE CITED

- Klubertanz, T. H. 1995. Survey of Iowa mayflies (Ephemeroptera). *J. Kans. Entomol. Soc.* 68: 20-26.

¹ Received April 3, 1998. Accepted April 4, 1998.

² Purdue Agricultural Research Program Journal No. 15699.

³ Department of Entomology, Purdue University, West Lafayette, IN 47907.

⁴ Hygienic Laboratory, University of Iowa, H. A. Wallace Bldg., Des Moines, IA 50319.